UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,876	02/27/2002	Kenneth Riordan	CS11457	4745

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EXAMINER
DUONG, OANH L

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/083,876	RIORDAN, KENNETH
	Examiner	Art Unit	
	Oanh Duong	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 October 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>10/14/2005</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-19 are presented for examination.

Specification Objection.

2.   The disclosure is objected to because the summary of the invention is missing.

> Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary
> or general statement of the invention as set forth in 37 CFR 1.73. The
> summary is separate and distinct from the abstract and is directed toward
> the invention rather than the disclosure as a whole. The summary may
> point out the advantages of the invention or how it solves problems
> previously existent in the prior art (and preferably indicated in the
> Background of the Invention). In chemical cases it should point out in
> general terms the utility of the invention. If possible, the nature and gist of
> the invention or the inventive concept should be set forth. Objects of the
> invention should be treated briefly and only to the extent that they
> contribute to an understanding of the invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka

et al. (Tanaka) (US 6,671,509 B1).

        Regarding claim 1, Tanaka teaches a network software downloading method

(Fig. 3), comprising:

        communicating terminal unique information for the downloading of common

software content from the network to a plurality of terminals in the network on

corresponding dedicated communication channels for each terminal (i.e., designating

of downloading channel is transmitted from the base station to the requesting mobile

station(s) using a slow associated control channel, col. 14 lines 26-44)

        transferring the common software content from the network to the plurality of

terminals on a shared communication channel (i.e., transmits these system software

through the broadcast channel, col. 8 lines 20-22).

        Regarding claim 2, Tanaka teaches the method of claim 1

        receiving a request for the common software content from a plurality of terminals

on corresponding dedicated communication channels for each terminal (i.e., the base

station waits for a download request from the mobile station, col. 7 lines 31-32);

transmitting the common software content from the network to the plurality of

terminals making the request on the shared communication channel after receiving the

request (i.e., transmit these software through broadcast channel, col. 8 lines 22-23);

receiving confirmation from each of the plurality of terminals that received the

software content on corresponding dedicated communication channels for each

terminal after transmitting (i.e., the base station receives a download completion notice

from the mobile station, col. 7 lines 47-49).

Regarding claim 3, Tanaka teaches sending a message to a plurality of terminals

on corresponding dedicated communication channels to receive the common software

content on a shared channel (i.e., a traffic channel used to transferred primarily user

information, col. 8 lines 16-17).

Regarding claim 4, Tanaka teaches the method of claim 1, receiving confirmation

from each of the plurality of terminals that received the common software content on

corresponding dedicated communication channels for each terminal after transmitting

(i.e., receives a download completion notice, col. 7 lines 47-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 5 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Tanaka in view of Wiehler (US 6,850,915 B1).

Regarding claim 5, Tanaka teaches the method of claim 1,

transmitting the common software content from the network to the plurality of

terminals on the shared communication channel (i.e., software items are transmitted

from the base station though the broadcast channel, col. 8 lines 42-43).

Tanaka does not teach transmitting a digital signature from the network to a

plurality of terminals over corresponding dedicated communication channels for each

terminal; and transmitting the common software content from the network to the

plurality of terminals after transmitting the digital signature.

Wiehler teaches transmitting a digital signature from the network to terminal(s)

(i.e., provided with a digital signature, col. 5 lines 34-43), and transmitting the software

from the network to the terminal(s) (i.e., user now can click the software object desired

for download, col. 5 line 57-58).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include transmitting a

digital to terminals and transmitting software from the network to the terminal(s) as

taught by Wiehler because it would enhance the security of the system (Wiehler, col. 6

lines 17-19).

Regarding claim 18, Tanaka teaches a radio communication network software downloading method (Fig. 3), comprising:

transmitting the common software content from the network to the plurality of terminals on the shared communication channel (i.e., software items are transmitted from the base station though the broadcast channel, col. 8 lines 42-43).

Tanaka does not teach transmitting a digital signature from the network to a plurality of terminals over corresponding dedicated communication channels for each terminal; and transmitting the common software content from the network to the plurality of terminals after transmitting the digital signature.

Wiehler teaches transmitting a digital signature from the network to terminal(s) (i.e., provided with a digital signature, col. 5 lines 34-43), and then transmitting the software from the network to the terminal(s) (i.e., user now can click the software object desired for download, col. 5 line 57-58).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teachings of Tanaka to include transmitting a digital to terminals and then transmitting software from the network to the terminal(s) as taught by Wiehler because it would enhance the security of the system (Wiehler, col. 6 lines 17-19).

Regarding claim 19, Tanaka teaches the method of claim 18, receiving confirmation from each of the plurality of terminals that received the software content on corresponding dedicated communication channels for each terminal after

transmitting (i.e., mobile station 12 sends a download completion notice/confirmation to base station 2 after receiving the software, col. 7 lines 52-56).

5.   Claims 6, 7,9-10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Varanasi (US 6,219,341 B1).

Regarding claim 6, Tanaka teaches the method of claim 1,

multiplexing a plurality of different common software content on the shared communication channel (i.e., supplying software from the base station to mobile station(s) based on a time-division multiplex transmission scheme using a broadcast channel, col. 8 lines 57-59).

Tanaka doe not explicitly teaches dynamically adjusting the plurality of different common software content multiplexed on the shared communication channel.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2 col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teaching of Tanaka to include the spread spectrum signals may be dynamically allocated because it would improve the bandwidth utilization of a channel so as to maximize the data throughput over the channel (Varanasi, col. 1 lines 48-49).

Regarding claim 7, Tanaka teaches the method of claim 6. Tanaka teaches

supplying software from the bass station to mobile station based on a time-division

multiplex transmission scheme using a broadcast channel, col. 8 lines 57-59).

Tanaka does not explicitly teach dynamically adjusting the plurality of different

common software content in proportion to a changing number of the plurality of

terminals receiving the plurality of different common software content.

Varanasi teaches multiplexing a plurality of digital data streams over a

communication channel and dynamically adaptable to changes in parameters such as

number of active users (associated with terminals) (Fig. 2, col. 6 line 11 and lines 21-

25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include dynamically

adjusting the plurality of different common software content in proportion to a changing

number of users as taught by Varanasi because it would improve bandwidth utilization

of a channel so as to maximize the data throughput over the channel (Varanasi, col. 1

lines 48-49).

Regarding claim 9, Tanaka teaches a radio communication network software

downloading method (see Fig. 3), comprising:

transmitting software content from a radio communication network to a plurality of

terminals in the network by multiplexing the software content on a shared

communication channel received by the plurality of terminals (i.e., supplying software

from the bass station to mobile station based on a time-division multiplex transmission

scheme using a broadcast channel, col. 8 lines 57-59).

Tanaka does not explicitly teach dynamically adjusting the software content

multiplexed on the shared communication channel.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teaching of Tanaka to include the spread

spectrum signals may be dynamically allocated because it would improve the

bandwidth utilization of a channel so as to maximize the data throughput over the

channel (Varanasi, col. 1 lines 48-49).

Regarding claim 10, Tanaka-Varanasi teaches the method of claim 9,

Tanaka does not explicitly teach dynamically adjusting the software content

multiplexed on the shared communication channel from a radio device management

server in communication with the radio communication network.

Varanasi teaches spread spectrum signals may be dynamically allocated (Fig. 2

col. 6 line 11 and 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teaching of Tanaka to include the spread

spectrum signals may be dynamically allocated because it would improve the

bandwidth utilization of a channel so as t maximize the data throughput over the

channel (Varanasi, col. 1 lines 48-49).

Regarding claim 15, Tanaka-Varanasi teaches the method of claim 9,

Tanaka teaches the software content comprises a plurality of software files (i.e.,

plurality of system software items, col. 10 line 67-col. 15 line 1).

Tanaka-Varanasi does not explicitly teach dynamically adjusting the software

content multiplexed on the shared communication channel based upon at least one of

file size and a number of the plurality of terminals receiving the software files.

Varanasi teaches dynamically adjusting the plurality of different common

software content in proportion to a changing number of users (associated with

terminals) (Fig. 2, col. 6 -11 and lines 21-25).

It would have been obvious to a person of ordinary skill in the art at the time of

the invention was made to combine the teachings of Tanaka to include dynamically

adjusting the plurality of different common software content in proportion to a changing

number of users as taught by Varanasi because it would improve bandwidth utilization

of a channel so as to maximize the data throughput over the channel (Varanasi, col. 1

lines 48-49).

Regarding claim 16, Tanaka teaches the method of claim 9, receiving

confirmation from each of the plurality of terminals that received the software content

on corresponding dedicated communication channels for each terminal after

transmitting (i.e., mobile station 12 sends a download completion notice/confirmation

to base station 2 after receiving the software, col. 7 lines 52-56).

Response to Arguments

6.   Applicant's arguments filed 10/14/2005 have been fully considered but they are

not persuasive.

In the remarks, applicant argued in substances that

(A)   Prior art fails to disclose or suggest terminal unique information is sent on

dedicated channel, and common software is sent on broadcast channel.

As to point (A), Regarding claim 1, Tanaka does teach terminal unique

information is sent on dedicated channel (i.e., traffic/dedicated channel for transferring

user information, col. 3 line 43), and common software is sent on broadcast channel

(i.e., supplying system software from the base station to the mobile station using a

unidirectional broadcast channel, Figs.3(a) and 3(b), col. 6 lines 7-10 and col. 8 lines

10-12).

(B)   Prior art does not disclose or suggest broadcasting content to multiple

mobile stations or any or the limitation of claim 2.

As to point (B), Regarding claims 2-4, Tanaka does teach broadcasting content

to multiple mobile stations (i.e., supplying system software from the base station to the

mobile station(s) using a unidirectional broadcast channel, Figs.3(a) and 3(b), col. 6

lines 7-10 and col. 8 lines 10-12).

(C)   There is no suggestion to combine the references.

As to point (C), Regarding claims 5 and 18, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, **Tanaka** teaches a mobile communication system where in software is downloaded/distributed to terminal (see abstract). **Wiehler** teaches method for controlling distribution of software by providing digital signature to terminal (col. 5 lines 34-43). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the digital signature of **Wiehler** in the process of distributing/downloading software in **Tanaka.** One would be motivated to do so to allow the enhancement of security to be achieved (**Wiehler,** col. 6 lines 17-19).

(D)   Prior Art fails to disclose or suggest receiving confirmation from each of the plurality of terminals that received the software content on corresponding dedicated communication channels for each terminal after transmitting.

As to point (D), Tanaka does teach receiving confirmation from each of the plurality of terminals that received the software content on corresponding dedicated

communication channels for each terminal after transmitting (i.e., mobile station 12

sends a download completion notice/confirmation to base station 2 after receiving the

software, col. 7 lines 52-56).

(E)   Prior art does not multiplex software content on a shared communication

channel.

As to point (E), Tanaka does teach multiplex software content on a shared

communication channel (i.e., supplying software from the base station to mobile

station(s) based on a time-division multiplex transmission scheme using a broadcast

channel, col. 8 lines 57-59).

(F)   Prior art does not teach or suggest multiplexes different software content

on a shared communication channel, nor dynamically adjusts the multiplexed software

in proportion to a changing number of terminals receiving the software.

As to point (F), Tanaka does teach multiplexes different software content on a

shared communication channel (i.e., supplying software from the base station to mobile

station(s) based on a time-division multiplex transmission scheme using a broadcast

channel, col. 8 lines 57-59).

Claims 10, 15 and16 are also rejected at least by virtue of the dependency on

independent claims and by other reasons set forth in above rejection. According, claims

1-19 are respectfully rejected.

As a result, the cited prior arts do disclose a radio communication network

software downloading methods as broadly claimed by the applicants. Applicants clearly

have still failed to identify specific claim limitations that would define a clearly patentable

distinction over prior arts.

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
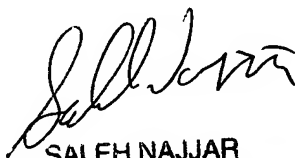
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Oanh Duong whose telephone number is (571) 272-

3983. The examiner can normally be reached on Monday- Friday, 2:00PM - 10:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

O.D
January 4, 2006

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER